

Differences in burden from sport related and general developmental tasks between elite handball players and recreational players

Theoretical background

Young elite athletes have to cope with high training loads while at the same time managing their educational career. Therefore, previous studies have found differences in the importance and satisfaction with general developmental tasks (GDT) in elite athletes (Ohlert & Ott, 2017), but until now, it is not clear, how the burden from GDT and also sport related developmental tasks (SRDT) affects general stress perception in athletes. The current study aims to answer this question and at the same time compare a sample of recreational and elite handball players.

Method

Participants were 81 elite handball players (3rd league or above) and 101 recreational handball players (59% female; \bar{x} age 18.3 years).

Stress was measured via the "Trier Inventory for the assessment of Chronic Stress" (TICS; Schulz, Schlotz und Becker, 2004). Importance, satisfaction with and burden from GDT and SRDT were assessed with the questionnaire developed by Ohlert & Kleinert (2014).

Mean values were calculated for all subscales. Correlation analyses as well as stepwise multiple regression analyses were performed separately for recreational and elite handball players.

Results

Results reveal that for elite handball players, burden from GDTs as well as SRDTs shows a positive correlation with perceived overall stress. For recreational players, only burden from SRDTs correlate positively with general stress (see table 1). Within each stepwise multiple regression analysis, only one predictor reached significance (see table 2): for recreational players, especially burden from coping with changes of the body (GDT) and finding a balance between stress and relaxation (SRDT) are significant predictors of general stress. For elite players, however, coping with the surrounding conditions of elite sport (SRDT) and developing a vision about a future spouse (GDT), are significant stress predictors, and explained variance is much higher than for recreational players.

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Elite athletes	
Importance of GDTs	.20
Satisfaction with GDTs	.04
Burden from GDTs	.36*
Importance of SRDTs	.02
Satisfaction with SRDTs	-.02
Burden from SRDTs	.27*
Recreational athletes	
Importance of GDTs	.01
Satisfaction with GDTs	-.08
Burden from GDTs	.17
Importance of SRDTs	.21*
Satisfaction with SRDTs	-.05
Burden from SRDTs	.39*

Table 1: Correlation between different aspects of GDTs and SRDTs, and perceived overall stress. Significant results ($p < .05$) are marked with *.

Elite athletes	β	Recreational athletes	β
GDT ($R^2 = .12$)		GDT ($R^2 = .06$)	
Vision about future spouse	.36	Coping with changes of the body	.26
SRDT ($R^2 = .10$)		SRDT ($R^2 = .17$)	
Surrounding conditions of elite sport	.33	Finding a balance between burden and relaxation	.42

Table 2: Relevant figures of the stepwise multiple regression analyses between burden with single GDTs and SDTs respectively with perceived overall stress. Only significant predictors are shown

Discussion

Our results indicate that elite handball players perceive stress from different developmental tasks than recreational players. Especially the general burden from GDTs correlates stronger with perceived stress than in recreational athletes. Also when looking at specific developmental tasks, the results remain completely different, and with a remarkable portion of explained variance for one GDT single "vision about future spouse", which seems to be an important stressor for elite handball players. This study underpins again the need for a greater acceptance of the existence of GDT in elite sports and consequences within the system.

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